

Institute of Chemical Engineering

Adres artykułu: <https://iich.gliwice.pl/en/article/the-enrichment-of-ventilation-air-methane-by-membrane-separation>

The enrichment of ventilation air methane by membrane separation

Publication date:	28.12.2017
Publication title:	The enrichment of ventilation air methane by membrane separation
Authors:	Marek Tańczyk , Manfred Jaschik , Krzysztof Warmuziński , Aleksandra Janusz-Cygan , Artur Wojdyła , Elżbieta Sołtys
Journal information:	Prace Naukowe Instytutu Inżynierii Chemicznej Polskiej Akademii Nauk
Tags:	membrane separation , ventilation air methane (vam) , commercial membrane modules

Abstract: The basic aim of this study was to analyze the possibility of using commercial membrane modules in the recovery of methane from ventilation air. Experimental investigations concerning the separation of gaseous mixture containing 0.3 vol.% of methane in nitrogen were carried out. However, no satisfactory increase in methane concentration was observed in the product in a single-step installation. Therefore, a multi-step membrane system was proposed with UMS-A5 module. It was found that the developed mathematical model can be used for design calculations and optimization in the enrichment of lean methane-nitrogen mixtures.

Attachments:

[Zeszyt-21-2017](#) pdf, 3.74 MB

Created at:	04.08.2025
Published by:	Artur Wojdyła
Published at:	05.08.2025 10:09
Number of downloads:	117

Tagi: membrane separation, ventilation air methane (vam), commercial membrane modules

Metryczka

Published by:	Artur Wojdyła
Published at:	18.09.2025 12:33
Number of views:	143